

CLAIMS

1. A machine tool accessory including a shank for
releasably attaching the accessory to a spindle of a
5 machine tool, the shank being attachable to the spindle
in a plurality of orientations and having electrical
contacts for electrical communication with
complementary electrical contacts at the spindle, the
accessory further including a circuit for determining
10 the orientation of the contacts of the shank relative
to complementary contacts at the spindle.

2. A machine tool accessory as claimed in claim 1
wherein the spindle is rotatable about an axis and
15 wherein the shank of the accessory is attachable to the
spindle in any orientation about the axis.

3. A machine tool accessory as claimed in claim 2
wherein the number of contacts at the shank is greater
20 than the number of complementary contacts at the
spindle.

4. A machine tool accessory as claimed in any one
preceding claim wherein the circuit comprises a
25 plurality of multi-way switches, switchable to route a
contact appropriately.

5. A machine tool accessory as claimed in claim 4
wherein the circuit includes a voltage or current
30 detection device for detecting the presence of voltage
across the contacts or for detecting current flowing
through the contacts and for causing the appropriate
switching of the switches.

6. A machine tool accessory as claimed in claim 4 or 5 wherein the circuit is operable to detect impedance across the complementary contacts.

5 7. A machine tool accessory as claimed in any one preceding claim wherein the contacts provide a route for power and signal to/from the accessory.

8. A machine tool accessory as claimed in any one
10 preceding claim wherein the circuit is powered by a power supply from the contacts.

9. A machine tool accessory as claimed in any one preceding claim wherein the contacts comprise at least
15 three contacts.

10. A machine tool accessory as claimed in any one preceding claim wherein the shank comprises a male taper and the contacts are disposed on or adjacent the
20 taper.

11. A machine tool comprising a stationary part;
a rotatable spindle;
and a machine tool accessory having a shank;
25 the spindle having a shank receiving area for releasably accepting in a plurality of orientations the shank of the machine tool accessory;

the machine tool further comprising a first electrical link between the stationary part and the
30 spindle and a second electrical link between the spindle and the shank in the form of a plurality of electrical contacts at the shank and a plurality of complementary electrical contacts at the shank receiving area of the spindle, the contacts being

arranged such that each is connectable to any one of the complementary contacts.

12. A machine tool as claimed in claim 10 wherein the
5 accessory is as claimed in any one claims 1 to 9.

13. A machine tool as claimed in claim 12 wherein a liquid seal is provided between the shank and the spindle.